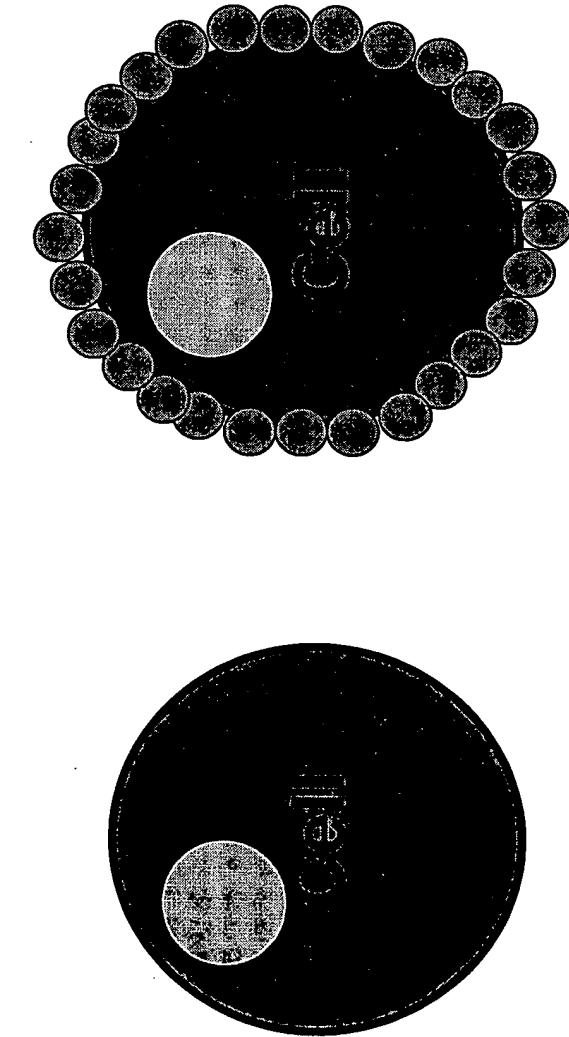
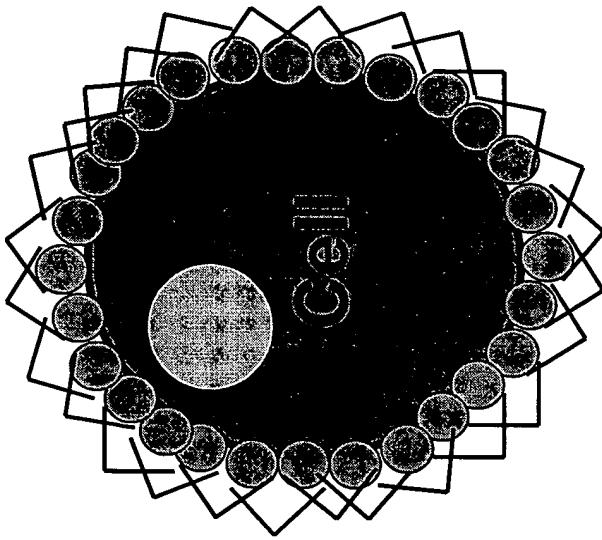


Figure 1

Plasma Membrane Isolation for RPMI 8226 Multiple Myeloma



Cells have a slight negative charge on their exterior



Polyacrylic acid attaches itself to the exposed silica beads, thereby shielding the exposed positive charge

Figure 2

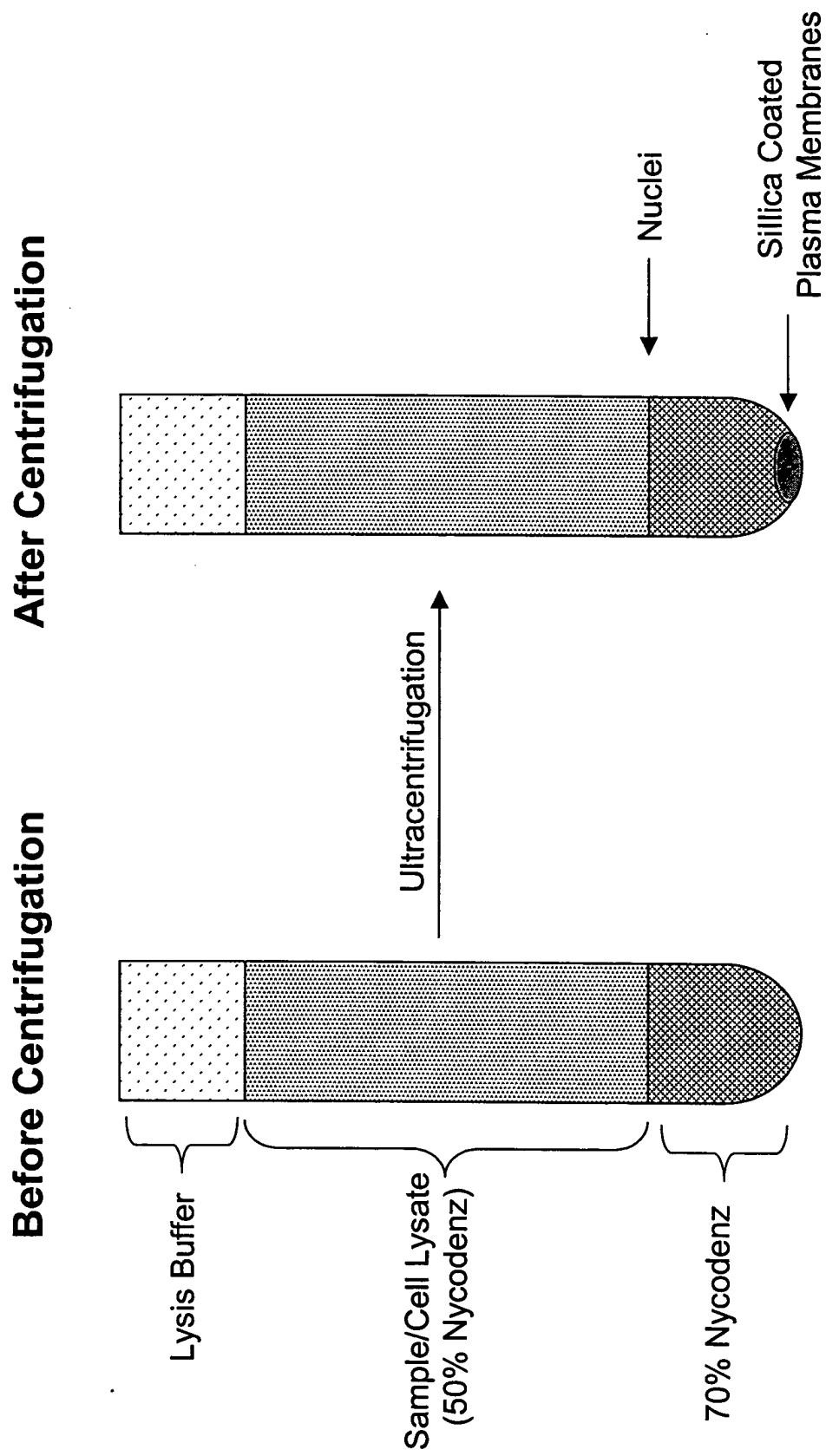


Figure 3
Plasma Membrane Isolation from MCF7 Breast Cancer Cells

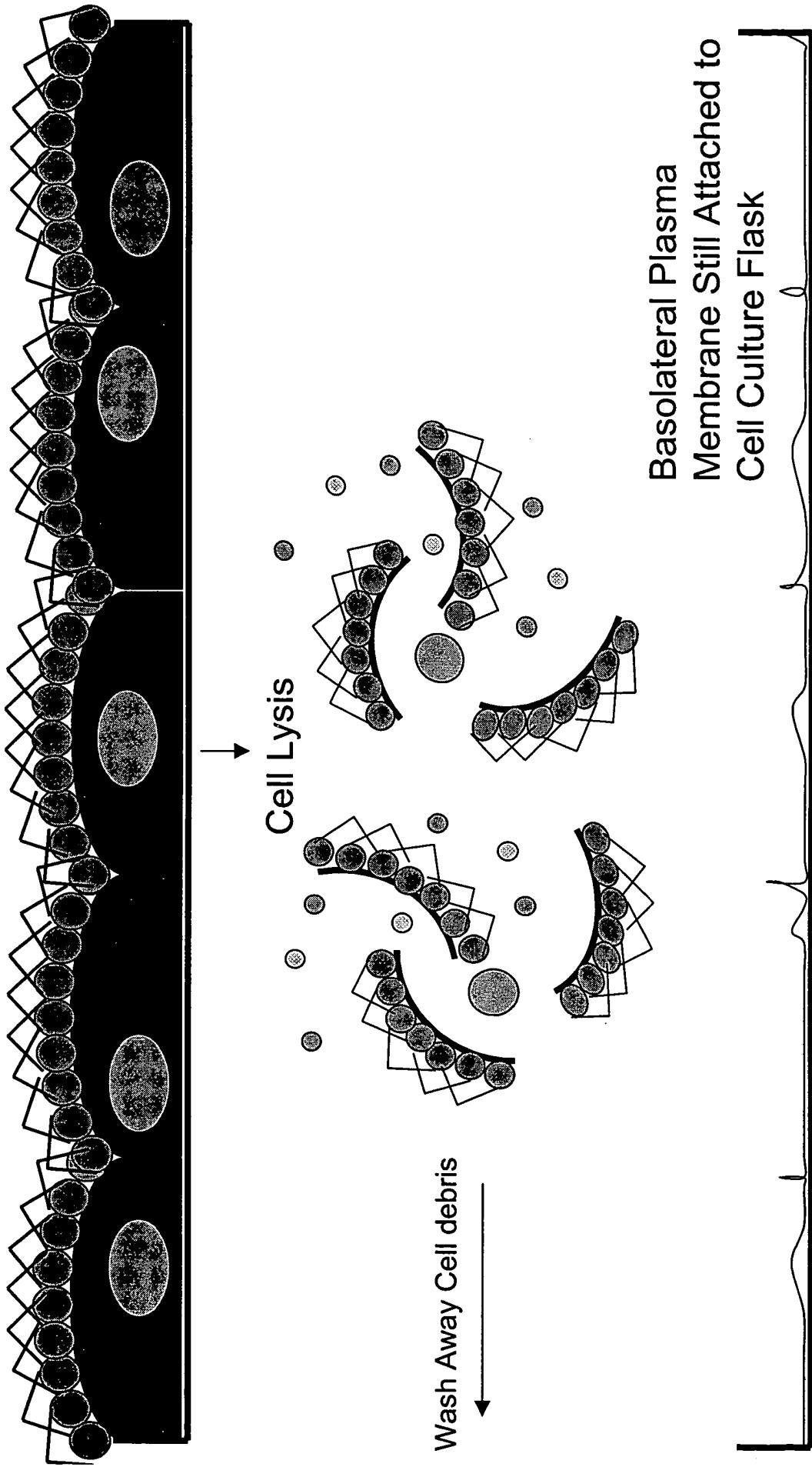


Figure 4

Experimental Scheme

1D SDS-PAGE

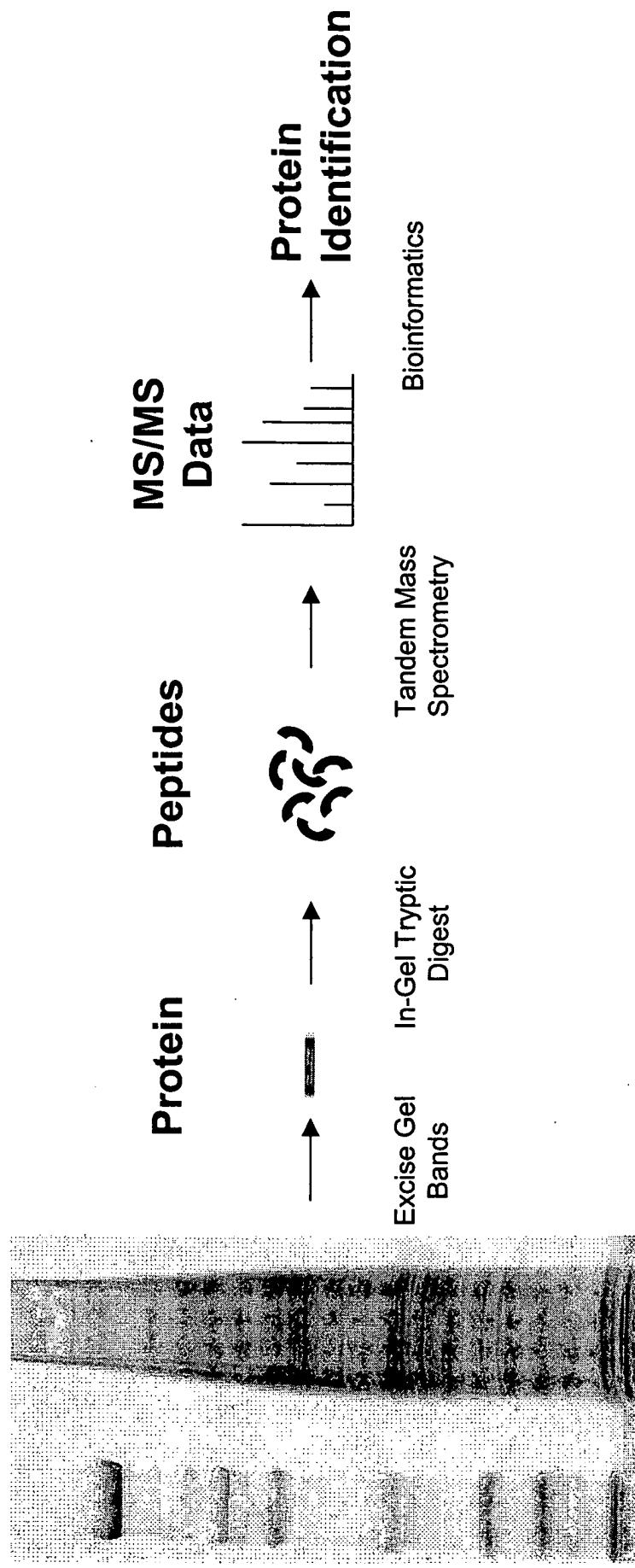
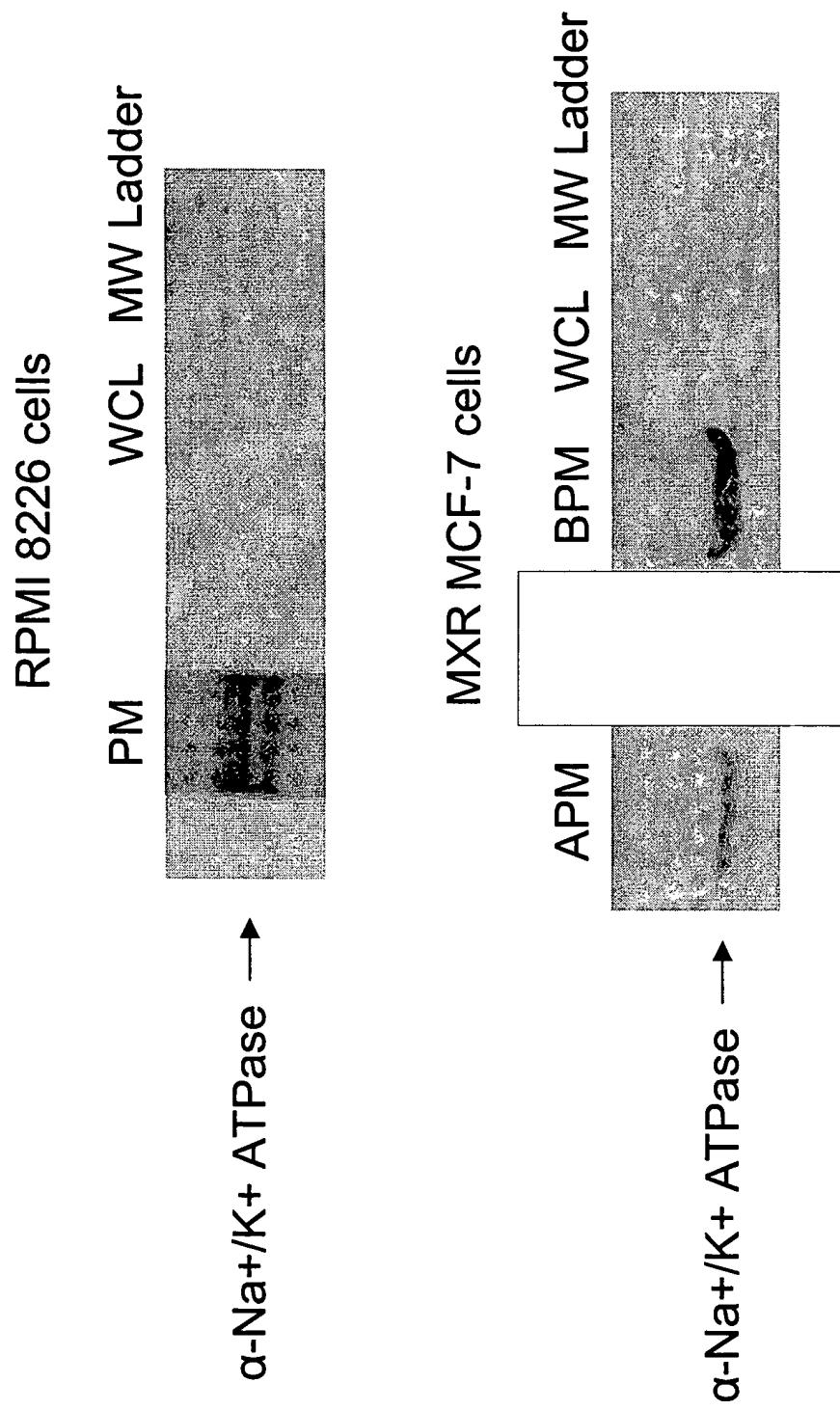


Figure 5
Western Blot for Determination of Plasma Membrane Enrichment



PM – Plasma Membrane; WCL – Whole Cell Lysate; APM - Apical Plasma Membrane; BPM – Basolateral Plasma Membrane

Figure 6

Plasma Membrane Enrichment

Cell Line	Relative Enrichment
RPMI 8226 Plasma Membrane	18 fold
MXR MCF-7 Apical Plasma Membrane	8 fold
MXR MCF-7 Basolateral Plasma Membrane	20 fold

Figure 7

Plasma Membrane Proteins Identified from RPMI 8226 Cells

	MW
Sodium/potassium-transporting ATPase alpha-1 chain precursor	114135
4F2 cell-surface antigen heavy chain	58023
Neutral amino acid transporter B(0)	57018
Neutral amino acid transporter A (SATT)	56087
Large neutral amino acids transporter small subunit 1	55659
Equilibrative nucleoside transporter 1	50626
P-selectin glycoprotein ligand 1 precursor	43346
HLA class I histocompatibility antigen, A-68 alpha chain precursor	41168
Guanine nucleotide-binding protein G(i), (Adenylylate cyclase-inhibiting G alpha protein)	40864
HLA class I histocompatibility antigen, BW-72(BW-70) B*1503 alpha chain	40647
HLA class I histocompatibility antigen, B-35 B*3505 alpha chain precursor	40634
Syndecan-1 precursor	32571
Sodium/potassium-transporting ATPase beta-3 chain	31834
Erythrocyte band 7 integral membrane protein (Stomatin)	31751
HLA class II histocompatibility antigen, DR-7 beta chain precursor	30145
Basigin precursor	29431
HLA class II histocompatibility antigen, DR alpha chain precursor	28760
Ras-related protein Rab-8	23668
HLA class II histocompatibility antigen, Dw2.2/DR2.2 beta chain	23178
Ras-related protein Rab-10	22755
Intestinal membrane A4 protein	16690

Figure 8

RPMI 8226 Multiple Myeloma Cells
21 Plasma Membrane Proteins Identified
48 Total Proteins Identified

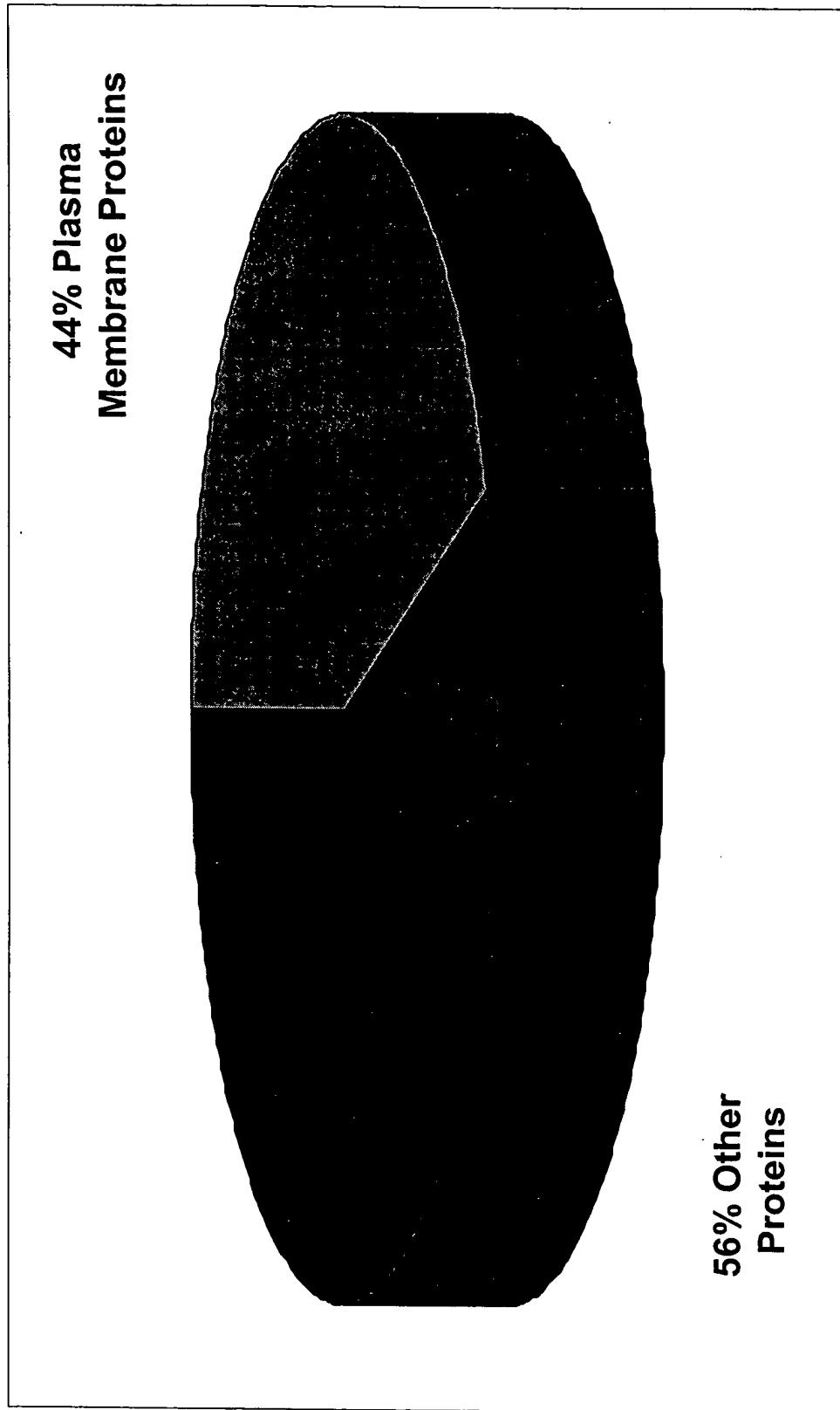


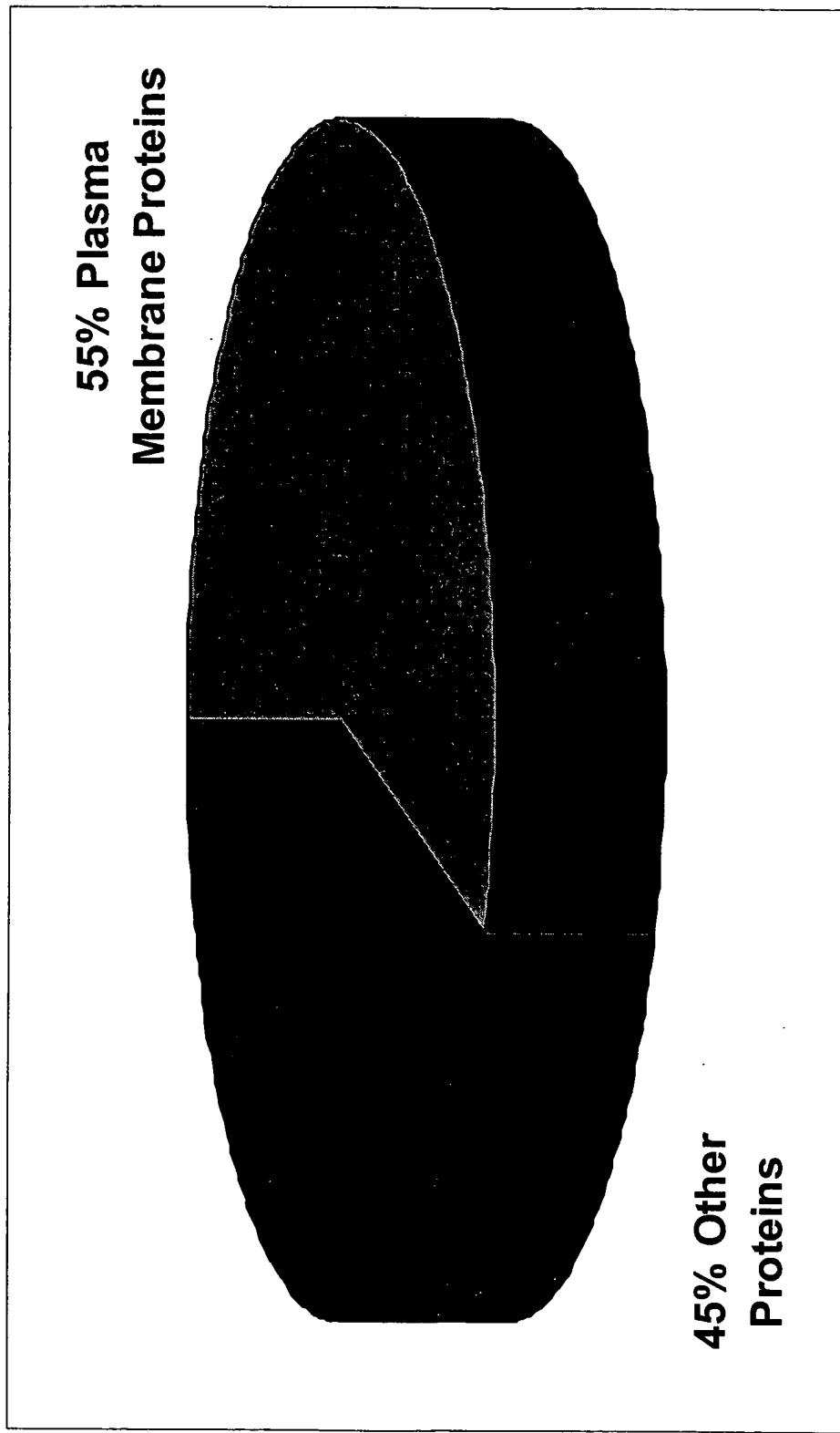
Figure 9

Basolateral Plasma Membrane Proteins Identified from MXR MCF-7 Cells

	MW
(ITA2_HUMAN) Integrin alpha-2 precursor (Platelet membrane glycoprotein Ia)	130469
(ITAV_HUMAN) Integrin alpha-V precursor (Vitronectin receptor alpha subunit)	117037
(A1A1_HUMAN) Sodium/potassium-transporting ATPase alpha-1 chain precursor	114135
(TFR1_HUMAN) Transferrin receptor protein 1	85304
(ABG2_HUMAN) BCRP, ATP-binding cassette, sub-family G, member 2,	72897
(4F2_HUMAN) 4F2 cell-surface antigen heavy chain	58023
(LAT1_HUMAN) Large neutral amino acids transporter small subunit 2	55660
(GB12_HUMAN) Guanine nucleotide-binding protein G(i), alpha-2 subunit	40864
(MPCP_HUMAN) Phosphate carrier protein	40527
(GBB2_HUMAN) Guanine nucleotide-binding protein G(I)/G(S)/G(T) beta subunit 2	38048
(TTD1_HUMAN) Tumor-associated calcium signal transducer 1 precursor	35582
(POR1_HUMAN) Voltage-dependent anion-selective channel protein 1 (VDAC-1)	30737
(CD81_HUMAN) CD81 antigen (26 kDa cell surface protein TAPA-1)	26477
(CD9_HUMAN) CD9 antigen (P24)	25838
(R11B_HUMAN) Ras-related protein Rab-11B	24673
(CLD3_HUMAN) Claudin-3 (Clostridium perfringens enterotoxin receptor 2)	23816
(RB5C_HUMAN) Ras-related protein Rab-5C	23781
(RAB7_HUMAN) Ras-related protein Rab-6	23759
(RB35_HUMAN) Ras-related protein Rab-35	23296
(RB10_HUMAN) Ras-related protein Rab-10	22755
(RB1B_HUMAN) Ras-related protein Rab-1B	22328
(RAC3_HUMAN) Ras-related C3 botulinum toxin substrate 3	21764
(RAPB_HUMAN) Ras-related protein Rap-1b	21040

Figure 10

MCF-7 Breast Cancer Cells Cells
23 Plasma Membrane Proteins Identified
42 Total Proteins Identified



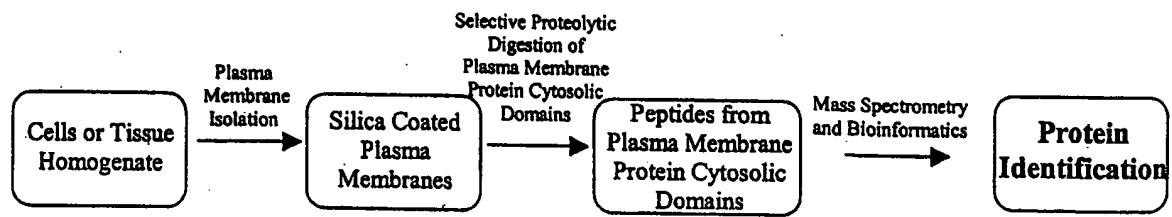


FIGURE 11